

**PCT**WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>C12N 15/55, 9/16, C07K 16/40, A61K 38/46</b>	<b>A1</b>	(11) International Publication Number: <b>WO 00/52175</b>	(43) International Publication Date: 8 September 2000 (08.09.00)
--	-----------	---	--

(21) International Application Number: PCT/EP00/01774

(22) International Filing Date: 2 March 2000 (02.03.00)

(30) Priority Data:  
199 09 388.1 4 March 1999 (04.03.99) DE(71) Applicant (for all designated States except US): MERCK  
PATENT GMBH [DE/DE]; Frankfurter Strasse 250,  
D-64293 Darmstadt (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KLUMPP, Susanne  
[DE/DE]; Gabelsbergerstrasse 9, D-35037 Marburg (DE).  
KELLNER, Roland [DE/DE]; Am Katzenpfad 10, D-64646  
Heppenheim (DE).(74) Common Representative: MERCK PATENT GMBH; Frank-  
furter Strasse 250, D-64293 Darmstadt (DE).(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG,  
BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB,  
GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,  
MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,  
SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU,  
ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL,  
SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ,  
MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE),  
OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML,  
MR, NE, SN, TD, TG).**Published***With international search report.**Before the expiration of the time limit for amending the  
claims and to be republished in the event of the receipt of  
amendments.*

(54) Title: HISTIDINE PROTEIN-PHOSPHATASE

## (57) Abstract

The invention relates to a novel enzyme, histidine protein phosphatase, which is derived from mammalian sources, and its homologue variants. The invention further relates to DNA sequences encoding said proteins, to a process for preparing the latter, and to antibodies directed against them. The novel phosphatase can be used for diagnosis of pathological states of cell regulation and cell growth and as pharmaceutical drug which can be administered in conjunction with pathological disorders related to malfunctions of said enzyme.